

gation shows that it was the sense of sight rather than of hearing which was the prompter to vocal utterance. But the consideration of the source of primitive significant sounds lies without the bounds of my present study.

It will be seen from these remarks that the primitive speech of man was far more rudimentary than any language known to us. It had no grammatical form; so fluctuating were its phonetics and so much depended on gesture, tone, and stress, that its words could not have been reduced to writing, nor arranged in alphabetic sequence; these words often signified logical contradictories, and which of the antithetic meanings was intended could be guessed only from the accent or a sign; it possessed no prepositions nor conjunctions, no numerals, no pronouns of any kind, no forms to express singular or plural, male nor female, past nor present; the different vowel-sounds and the different consonantal groups conveyed specific significance, and were of more import than the syllables which they formed. The concept of time came much later than that of space, and for a long while was absent.

Obituary Notice of Philip H. Law, Esq. By Daniel G. Brinton, M.D.

(Read before the American Philosophical Society, October 19, 1888.)

In one of the conversations of his later life, Goethe said, that some of the most remarkable men whom he had met in his career had never acquired distinction in any line of effort. Something of the same kind is stated by Hugh Miller, the geologist, in his "Autobiography." I am reminded of these expressions in preparing a biographical notice of our late member, Mr. Philip H. Law. Those who knew him best will, I think, agree with me in pronouncing him a remarkable man; although it is difficult to point to anything that he accomplished which would justify the epithet. This lack of accomplished deeds may in part be explained by the circumstances of his life. He was the only son of parents enjoying pecuniary ease, and as he never married he lacked that potent stimulus to effort—necessity.

His birth took place in Baltimore, February 17, 1839. When he was about eight years of age, the family removed to Philadelphia, where Mr. Law resided the rest of his life, rarely leaving the city even in summer for a single day. Some of his youthful experiences were in the office of his father, who was a broker, and the glimpses he there obtained of Third street methods were never forgotten by him.

His earlier education was completed at the University of Pennsylvania, and a few years later he was admitted to the bar, which was his ostensible profession for the rest of his life. In later years he paid but little attention to it, preferring to give his hours to general reading and intellectual conversation. Legal practice was distasteful to him, though I am informed by those more capable of judging than myself, that his knowledge of the theory of the law was sound and extensive. He was well versed in certain branches of it rarely explored by ordinary lawyers, for instance, the Roman and Norman codes, and the history of the development of English Common Law and Procedures.

Mr. Law had a remarkably retentive memory and I cannot now recall any person of my acquaintance who surpassed him in a knowledge of general prose literature. On various occasions when I had been attracted by some little-known author I would air my newly acquired knowledge in his presence and would usually find that he had dipped more or less deeply into the volumes. Thus, on one occasion I had been looking up the life and works of Charles von Bonstetten, sufficiently little known in this country, but I found he was no stranger to my friend Law. At another time we tried him with Jomini's works on the art of war; but he was singularly familiar with them. Such examples were constant.

He had read extensively in the memoirs and biographies of the seventeenth and eighteenth centuries, both French and English. His knowledge of the former language was lexicographically good, and he had kept up and increased his knowledge of Latin imbibed at college, and perused the Roman authors frequently.

To one branch of literature he always manifested an aversion. This was poetry, especially its modern forms. I once persuaded him to read aloud Swinburne's "Our Lady of Seven Sorrows." He did so with "good accent and good discretion," but at the close threw the volume aside with an expression of contempt. This aversion I attribute to a natural and cultivated predominance of the intellectual over the emotional elements of character. He once informed me that never, even as a youth, did he have the common experience of falling in love. His family and friendly affections, which were strong, were directed by natural sympathies, or by a sense of duty, rather than by unconscious emotion.

To the claims of music he was even more indifferent. Of this art he was accustomed to say that it should be placed on a level with cookery, the one titillating the palate, the other the ear, neither conveying any ideas to the intellect; at most, perhaps, like Plato, he might have conceded that music is useful in teaching boys proper etiquette.

His sense of truth was keen, and I have often heard him inveigh against the modern historians who strive to conceal the discreditable sides of their heroes' characters. He held up as a model for all biographers the immortal pages of Plutarch, who never hesitates to reveal the vanity of a Cæsar, the meanness of a Cato, or the adulteries of an Alcibiades. I never met a man who more clearly perceived than did Law that the cause of

truth and justice is not benefited by lying, even that quasi-lying which consists in the deliberate concealment of the truth.

In business matters his judgment was sound and clear, and I and others of his friends benefited much by his advice. He laughed at those who suppose that abstract studies disqualify for dealings with men, and quoted Schopenhauer's reply when some one expressed surprise at his business ability: "Do you think because I am a philosopher, that I am therefore a fool?"

In his conversational powers, Law was a marked figure when he chose to give them play. This he rarely did in a large company. At such times he was apt to remain silent. But it was the reverse among those with whom he felt sure he would not be misunderstood. Then, indeed, the complaint might be that he would monopolize the conversation. His style was somewhat Johnsonian, crowding down less voluble speakers, but himself saying what the company generally wished to listen to. For some years he was a conspicuous member of a small association of men who desired to turn their minds to subjects higher than the affairs of daily life, an association which ambitiously styled itself "The Philosophers." Whatever else we learned in that assembly, we did not discover the elixir of life, for the association became extinct in a few years.

He was not gifted as a public speaker, and it was rare that he occupied the time of the various learned societies of which he was a member. He was, however, an appreciative listener and there were few topics of modern research in which he did not take an intelligent interest. He occupied a position as an officer in this and other societies, and was always prompt and careful in the performance of any duties thus imposed upon him.

While an omnivorous reader, he had some topics of predilection. One of these was metaphysics. He had been educated in the usual doctrines of one of the Protestant denominations, but, as he told me on one occasion, had his intellectual slumber broken by reading Sir William Hamilton's celebrated treatise on the "Philosophy of the Unconditioned." He learned later that Hamilton's views are really little more than an expansion of Kant's famous antinomies of the human understanding, and Law agreed with Lewes in the opinion that that wonderfully acute critique destroyed forever the foundation of all speculative philosophy. That Kant avoided this conclusion, he characterized as subservience to authority; that Hamilton did not push his theory to this extent, he attributed to timidity; and that Hegel pretended to have framed a new logic which avoided it, was a claim in his opinion proved false by its failure.

By this ratiocination Mr. Law was led toward the Comtian doctrines, which he studied with much care. They persuaded him that that philosophy known as the Positive is alone the body of principles which are consistent with the demands of modern science and social relations. In the many discussions I had with him on this topic I could never gain any concessions from him in favor of the idealistic or even the monistic doc-

trines. What to me seemed the abstractly true, as for instance, the formulæ of the higher mathematics, he rejected, in accordance with the tenets of the Positivists, as merely formal and not real expressions, *idolæ fori et scholæ*; yet with native intellectual fairness, he clearly saw and freely acknowledged that the Platonic doctrine of archetypal ideas, if it could be established, would be a far grander cosmic conception than Positivism presents. But he insisted on the total illogicality of the evidence in its favor.

His favorite authors in this domain were Aristotle, Bacon, Hobbes, Locke and Hume. He did not, as many, speak of these great names through reviews, encyclopedias, and other second-hand sources of information, but from frequent and attentive perusal of their works. To him, this long line of rationalistic thinkers expressed the sober, sound and real intellectual advance of the race, holding man's mind down to what he can certainly know, and dismissing as vain and hurtful all pretended intuitions, inspirations, and emotional imaginings.

Consistently with this dismissal of the pursuit of primary causes—the search for the unsearchable—he welcomed the Darwinian hypothesis of transformation as a complete and satisfying explanation of the phenomena of organic life by the assignment of known and intelligible proximate causes. Though little interested in natural history, he was well acquainted on its philosophic side with the great controversy over evolution.

That marvelous genius, Pascal, spent the latter years of his life in preparing material for a work on the grandeur and the baseness of human nature. Mr. Law fully appreciated this seeming paradox. His estimate of the conscious motives of men was very low. He held that greed, lust, hatred, vanity and self-interest are the prime movers in most deliberate actions; but he also constantly pointed out the enormous personal sacrifices which most men make, unconsciously or nearly so, for their families and their country. He was unwilling to acknowledge motiveless evil in human nature. I once asserted that some men take an innate pleasure in witnessing pain. He warmly denied this, and maintained that such an opinion arose from an incomplete analysis of the fact.

The study of ethics had particular attractions for him, and he had familiarized himself with the leading treatises on that branch, from Aristotle down. He delighted, with all the zest of Montaigne, to point out the mutations of the ethical standards in different periods and climes. He loved extreme examples; as that in ancient Persia it was a particularly meritorious deed for a son to take his own mother to wife; or that to-day in India, prostitution is a sacred profession. Consequently he regarded all ethical prescriptions as of temporary force only. In one conversation he summed them up under three heads: National ethics, which defines the rights of men in communities and are roughly synonymous with the laws of the commonwealth; Social ethics, in which is included all that pertains to etiquette and good breeding; and Personal ethics, which embraces the care of the person, and prudence and foresight with regard to

one's own needs. This classification impressed me as comprehensive and just, and was, I am quite sure, original with him.

The amelioration of society in modern times he explained as due to the evolution of the benevolent emotions and of the sense of justice through enlarged social relations, and not to religious dogmas. All such dogmas and doctrines he looked upon as transient forms of man's intelligence in its progressive development toward clear materialism, which teaches that beyond the properties of matter, its elements and laws, there is nothing. Such an opinion may in the future prove to be the ripened fruit of the tree of knowledge; or new discoveries in the field of psychic research may pronounce it narrow and fallacious. No mortal can say. At present, the advocates of such tenets are few, and their presentation unwelcome, especially in this country. A considerable degree of moral courage is required to maintain them, and this should always be placed to the credit of those who conscientiously attach themselves to a small and unpopular minority.

Finding his pleasure almost exclusively in such studies, themes purely of the intellect, he cared little for the beautiful in art or nature. He quoted with approbation Dr. Johnson's reply when asked to stroll through the fields near London, "Let us walk down the Strand; let us see *men*." Equally indifferent was he both to what is called society, and to the games and amusements in which most men pass their leisure. I never knew him to take a drive for pleasure, nor to play a game of cards or billiards, nor to go gunning or fishing, nor to attend a concert, nor to visit a picture gallery. Through this narrowness of his tastes he became almost a recluse in his later years, and was frequently misunderstood by those whom he did meet. He devoted his time to reading, being of the opinion of Lord Bacon, that "Reading is converse with the wise; but action is, for the most part, commerce with fools."

Law was averse to the labor of composition. He prepared a few papers for reading before the Numismatic and Antiquarian Society, whose meetings he attended with regularity, but I believe nothing he wrote was published in full. Most of these papers were descriptive of historic sociological conditions, either in this country or in Europe. Mr. Isaac Myer, the competent historiographer of the Numismatic and Antiquarian Society, has given their titles, together with a number of genealogical and biographical details in the necrology of Mr. Law which he laid before that Society.

Such limited results of a life of leisure mainly devoted to literary and historical study is a phenomenon common enough in this age. It was not altogether due to indolence or timidity. The pursuit of fame, pronounced a disease by Milton, and overtly despised by Shakespeare, becomes the most trivial of motives to one who is accustomed to compare the momentary duration of human life with the infinite measures of time and space. All his intimate friends know that this was a familiar topic of

conversation to Law, and undoubtedly on him it reacted disastrously, as it did on Amiel, whose *Journal Intime* bears constant traces of it.

Our friend was a lover of good cheer, but it was far from filling the requirements of his nature. No one could content himself with humbler fare or cared less to pamper himself with luxuries. Yet no one appreciated more highly the delights of a nobly spread board, and the merits of a bottle of sound wine, when combined with friendly companionship and intellectual conversation. Any one capable of appreciating the best qualities of heart and mind, who met Mr. Law at such times, could not fail of bearing away sentiments of affection and respect for him.

He was careless with reference to dress, and this not only as matter of habit, but of avowed principle. He shared Carlyle's contempt for clothes, and maintained that for a man to attach much importance to his garb is a sign of mental backwardness. He referred to the picturesque and beautiful costumes of men of past centuries, and explained their disappearance as a mark of evolution. That women are as devoted as ever to such fine feathers he adduced as evidence in favor of his avowed belief in their mental inferiority as a sex. He was an earnest advocate of the virile power, as against feminine influence. He thoroughly agreed with Thackeray's opinion, as expressed in "Henry Esmond," that a man or a country ruled by the influence of priests or women is on the high road to decadence.

In politics Mr. Law was a Democrat, and in political economy a Free-trader. These were not merely inherited opinions. He had read very widely the authors on modern political history, and set forth clearly both the many fallacies of the protective theory as a national policy and also that it is in open conflict with the brotherhood of man. The doctrine that each nation should take care of its own interests, without reference to its neighbors, he characterized as on the same level of morals as the common expression, "Every man for himself and the devil take the hindmost," both absolutely at issue with the grand Comtian motto, *Vivre pour autrui*. Altruism, he contended, is the highest moral principle both for the individual and the State, and its repudiation by either will work no ultimate good result. National selfishness he condemned as just as unphilosophical, and for that matter just as un-Christian, as individual selfishness.

At the time of his death, Mr. Law was not yet fifty; but he had already reached an age greater than the average of his male ancestors in either branch as far as they could be traced. None had attained advanced years, and thoroughly acquainted as he was with the doctrine of heredity as applied to longevity, he did not flatter himself with the expectation of long life. When I left for Europe in February last, he expressed serious doubts whether he would be alive on my return, as he was not. This anticipation was not owing to physical debility. He was of a large, powerful frame, weighing about 210 pounds, and had never been sick except on one occasion, from a temporary surgical affection. His death was sud-

den. On the morning of the 22d of May he fell dead in the street from heart disease or apoplexy, it is not known which.

We have lost in him a member who, perhaps, more than any one of us, deserved to be an associate in a *Philosophical* society, and one whose philosophy, however different from that popular in this community, prompted him all his life to be an affectionate son and brother, a warm and sympathetic friend, and a man of honorable instincts.

On the Attachment of Platyceras to Palæocrinoids, and its Effects in Modifying the Form of the Shell.

By Charles R. Keyes.

(Read before the American Philosophical Society, October 19, 1888.)

Attention has lately been called to the sedentary habits of *Platyceras*,* and to the variable configuration of the apertural margin in different individuals of the same species—the confirmatory evidence being partly from analogy among living forms closely allied to the fossil; partly, and more directly, by the actual occurrence of various *Platycerata* attached to palæozoic crinoids. The association of these gasteropods with the crinoids had long been known, but prior to the recent discovery of a rich crinoidal fauna in the Keokuk rocks of Indiana illustrative examples of this kind were numerically very limited. The recorded instances of such findings have usually been accompanied by more or less brief explanatory remarks, but until 1868† the interpretations were for the most part incorrect, chiefly on account of erroneous conceptions relative to the functions of various organs in the crinoid. It was, however, noted that the molluscan shells were nearly always on the ventral side of the crinoid in the proximity of the vault opening and encompassed by the arms—a fact which was thought to afford conclusive proof of the carnivorous habits of the crinoids, which were, at the moment of perishing, in the act of devouring the mollusks. The examination of several fossil crinoids having shellfish inclosed by the arms led the Austins‡ to some general conclusions relative to the food of all the crinoids; and they give a vivid though highly imaginary account of the capture of *Producti* and univalves by the “rapacious” echinoderm. Another explanation of this phenomenon was subsequently advanced to the effect that the gasteropods were parasitic in their habits, but this also now appears to require considerable emendation. Later investigations among recent and fossil crinoideans show that the food of the species now extant consists in great part of animalcules and microscopic

* Keyes, Am. Jour. Sci., Vol. xxxvi, p. 269, 1888.

† Meek and Worthen, Proc. Acad. Nat. Sci. Phila., 1868, p. 340.

‡ Monog. Recent and Fossil Crinoidea, p. 73, 1843.